Amendments to the Claims:

This listing of claims will replace all previous versions, and listings of claims in the application:

1. (Currently Amended) ~~An apparatus for combining first and second image data of an object, comprising~~

~~• an ultrasound detector for repeatedly generating the first image data of the object;~~

~~• means for storing and/or receiving the second image data of the object, for example image data generated by a computer tomography, a magnetic resonance, a positron emission tomography or an X-ray imaging device;~~

~~• a combination device which is adapted to combine the first and second image data of the object; and~~

~~• an image data connection from the ultrasound detector to the combination device for transferring the first image data;~~

~~wherein the ultrasound detector is connected to the combination device by a geometry data connection, wherein the geometry data connection, the ultrasound detector and the combination device are adapted to transfer geometry data additionally to the first image data from the ultrasound detector to the combination device and wherein the geometry data comprise one or more than one of the following type of information:~~

~~a) information concerning at least one spatial dimension of an image unit of the first image data, in particular of a pixel;~~

~~b) information concerning an image position of at least a part of an image, which is represented by the first image data, relative to a reference point of the ultrasound detector or relative to a reference point or reference object in the ultrasound image;~~

~~c) information concerning an orientation of the ultrasound image relative to a reference point or a reference object of the ultrasound detector; and~~

~~d) information concerning a region or an area, which is actually covered by an ultrasound image that is represented by the first image data.~~

An apparatus for combining first and second image data of an object, comprising:

an ultrasound detector for repeatedly generating first image data of the object;

a combination device;

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at least one data connection;

structure configured for at least one of storing and receiving second image data of the object;

wherein said combination device is adapted to combine said first image data and said second image data;

wherein said at least one data connection is designed to transfer from said ultrasound detector to said combination device at least said geometry data;

wherein said geometry data comprise data defining at least one of the following:

a)   information concerning at least one spatial dimension of an image unit of the first image data;

b)   information concerning an image position of at least a part of an image, which is represented by the first image data, relative to a reference point of the ultrasound detector or relative to a reference point or reference object in the ultrasound image;

c)   information concerning an orientation of the ultrasound image relative to a reference point or a reference object of the ultrasound detector; and

d)   information concerning a region or an area, which is actually covered by an ultrasound image that is represented by the first image data.

2.   (Currently Amended) ~~The apparatus of claim 1, wherein the image data connection is adapted to directly transfer the first image data in a digital format from the ultrasound detector to the combination device.~~

The apparatus of claim 1 wherein said at least one data connection is designed to transfer from said ultrasound detector to said combination device said first image data and said geometry data.

3.   (Currently Amended) ~~The apparatus of claim 1 or 2, wherein the ultrasound detector comprises a control unit for controlling an image data generation of the ultrasound detector and wherein the control unit is adapted to generate at least a part of the geometry data.~~

The apparatus of claim 1 wherein said at least one data connection comprises a first data connection which is designed to transfer from said ultrasound detector to said combination

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device said geometry data and a second data connection which is designed to transfer from said ultrasound detector to said combination device said first image data.

4.   (Currently Amended) ~~A method of combining first and second image data of an object, wherein~~

~~the first image data of the object are repeatedly generated by an ultrasound detector;~~

~~the second image data of the object are generated separately, for example the second image data have been recorded earlier by a computer tomography, a magnetic resonance, a positron emission tomography or an X-ray imaging device;~~

~~the first image data are transferred from the ultrasound detector to a combination device;~~

~~the combination device is adapted to combine the first and second image data of the object;~~

~~geometry data are transferred in addition to the first image data from the ultrasound detector to the combination device, wherein the geometry data comprise one or more than one of the following type of information:~~

~~a)   information concerning at least one spatial dimension of an image unit of the first image data, in particular of a pixel;~~

~~b)   information concerning an image position of at least a part of an image, which is represented by the first image data, relative to a reference point of the ultrasound detector or relative to a reference point or reference object in the ultrasound image;~~

~~c)   information concerning an orientation of the ultrasound image relative to a reference point or a reference object of the ultrasound detector; and~~

~~d)   information concerning a region or an area, which is actually covered by an ultrasound image that is represented by the first image data.~~

The apparatus of claim 1 wherein said at least one data connection is adapted to directly transfer said first image data in a digital format from said ultrasound detector to the combination device.

5.   (Currently Amended) ~~The method of claim 4, wherein the geometry data comprise information concerning a detector position of the ultrasound detector relative to a position sensor~~

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~~and/or relative to a signal source, for determining a location and/or an orientation of the ultrasound detector.~~

The apparatus of claim 1 wherein said ultrasound detector comprises a control unit for controlling an image data generation of said ultrasound detector and wherein said control unit is adapted to generate at least a part of said geometry data.

6.   (Currently Amended) ~~The method of claim 4, wherein the geometry data are generated by and/or transferred from a control unit of the ultrasound detector and wherein the control unit is adapted to control an image data generation of the ultrasound detector.~~

The apparatus of claim 1 wherein said geometry data comprises data defining information concerning at least one spatial dimension of a pixel of the first image data.

7.   (Currently Amended) ~~The method of claim 4, wherein the combination device continuously displays a first image of the object corresponding to the repeatedly generated first image data and continuously displays a second image of the object corresponding to the second image data, wherein the orientation and/or scaling of at least a part of the object is identical in the first and in the second image.~~

The apparatus of claim 1 wherein said second image data comprises at least one of image data generated by a computer tomography, a magnetic resonance, a positron emission tomography, an X-ray and a three-dimensional ultrasound imaging device.

8.   (Currently Amended) ~~The method of claim 4, wherein at least a part of the geometry data is repeatedly transferred to the combination device, in particular every time when the first image data are generated.~~

The apparatus of claim 1 wherein said geometry data comprise data defining information concerning at least one spatial dimension of an image unit of said first image data.

9.   (New) The apparatus of claim 1 wherein said geometry data comprise data defining information concerning at least an image position of at least a part of an image, which is represented by the first image data relative to a reference point of the ultrasound detector or

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relative to a reference point or reference object in the ultrasound image.

10.   (New) The apparatus of claim 1wherein said geometry data comprise data defining information concerning at least an orientation of the ultrasound image relative to a reference point or a reference object of the ultrasound detector.

11.   (New) The apparatus of claim 1 wherein said geometry data comprise data defining information concerning at least a region or an area which is actually covered by an ultrasound image that is represented by said first image data.

12.   (New) The apparatus of claim 1wherein said first image data is derived from said ultrasound detector.

13.   (New) The apparatus of claim 1wherein said second image data is derived from a second detector other than said ultrasound detector.

14.   (New) The apparatus of claim 13 wherein said second detector is not an ultrasound detector.

15.   (New) A method of making an apparatus for combining first and second image data of an object, comprising:

     providing an ultrasound detector for repeatedly generating first image data of the object;

     providing a combination device;

     providing at least one data connection;

     providing structure configured for at least one of storing and receiving second image data of the object;

     wherein said second image data of the object comprises at least one of image data generated by a computer tomography, a magnetic resonance, a positron emission tomography, and an X-ray imaging device;

     wherein said combination device is adapted to combine said first image data and said

second image data;

wherein said at least one data connection is designed to transfer from said ultrasound detector to said combination device at least said geometry data;

wherein said geometry data comprise data defining at least one of the following:

a)   information concerning at least one spatial dimension of an image unit of the first image data;

b)   information concerning an image position of at least a part of an image, which is represented by the first image data, relative to a reference point of the ultrasound detector or relative to a reference point or reference object in the ultrasound image;

c)   information concerning an orientation of the ultrasound image relative to a reference point or a reference object of the ultrasound detector; and

d)   information concerning a region or an area, which is actually covered by an ultrasound image that is represented by the first image data.

16.   (New) The method of claim 15 wherein said at least one data connection is designed to transfer from said ultrasound detector to said combination device said first image data and said geometry data.

17.   (New) The method of claim 15 wherein said at least one data connection comprises a first data connection designed to transfer from said ultrasound detector to said combination device said geometry data and a second data connection designed to transfer from said ultrasound detector to said combination device said first image data.

18.   (New) The method of claim 15 wherein said geometry data comprise data defining information concerning at least one spatial dimension of an image unit of said first image data.

19.   (New) The method of claim 15 wherein said geometry data comprise data defining information concerning at least an image position of at least a part of an image, which is represented by the first image data relative to a reference point of the ultrasound detector or

relative to a reference point or reference object in the ultrasound image.

20.   (New) The method of claim 15 wherein said geometry data comprise data defining information concerning at least an orientation of the ultrasound image relative to a reference point or a reference object of the ultrasound detector.

21.   (New) The method of claim 15 wherein said geometry data comprise data defining information concerning at least a region or an area which is actually covered by an ultrasound image that is represented by said first image data.

22.   (New) The method of claim 15 wherein said first image data is derived from said ultrasound detector.

23.   (New) The method of claim 15 wherein said second image data is derived from a second detector other than said ultrasound detector.

24.   (New) The method of claim 23 wherein said second detector is not an ultrasound detector.

25.   (New) A method of using an apparatus for combining first and second image data of an object, comprising:

       repeatedly generating first image data of the object using an ultrasound detector;

       at least one of storing and receiving second image data of the object;

       combining said first image data and said second image data using a combination device;

       transferring from said ultrasound detector to said combination device said first image data and geometry data using at least one data connection;

       wherein said geometry data comprise data defining at least one of the following:

       a)   information concerning at least one spatial dimension of an image unit of the first image data;

       b)   information concerning an image position of at least a part of an image, which is

represented by the first image data, relative to a reference point of the ultrasound detector or relative to a reference point or reference object in the ultrasound image; and

c)   information concerning an orientation of the ultrasound image relative to a reference point or a reference object of the ultrasound detector; and

d)   information concerning a region or an area, which is actually covered by an ultrasound image that is represented by the first image data.

26.   (New) The method of claim 25 wherein said second image data comprises at least one of image data generated by a computer tomography, a magnetic resonance, a positron emission tomography, an X-ray and a three-dimensional ultrasound imaging device.

27.   (New) The method of claim 25 wherein said geometry data comprise information concerning a detector position of the ultrasound detector relative to at least one of a position sensor and a signal source, for determining at least one of a location and an orientation of said ultrasonic detector.

28.   (New) The method of claim 25 wherein said geometry data are at least one of generated by and transferred from a control unit of the ultrasound detector and wherein the control unit is adapted to control an image data generation of the ultrasound detector.

29.   (New) The method of claim 25 wherein the combination device continuously displays a first image of the object corresponding to the repeatedly generated first image data and continuously displays a second image of the object corresponding to the second image data, wherein at least one of the orientation and scaling of at least a part of the object is identical in the first and in the second image.

30.   (New) The method of claim 25 wherein at least a part of the geometry data is repeatedly transferred to the combination device.

31.   (New) The method of claim 25 wherein said geometry data comprise data

defining information concerning at least one spatial dimension of an image unit of said first image data.

32.   (New) The method of claim 25 wherein said geometry data comprise data defining information concerning at least an image position of at least a part of an image, which is represented by the first image data relative to a reference point of the ultrasound detector or relative to a reference point or reference object in the ultrasound image.

33.   (New) The method of claim 25 wherein said geometry data comprise data defining information concerning at least an orientation of the ultrasound image relative to a reference point or a reference object of the ultrasound detector.

34.   (New) The method of claim 25 wherein said geometry data comprise data defining information concerning at least a region or an area which is actually covered by an ultrasound image that is represented by said first image data.

35.   (New) The method of claim 25 wherein said at least one data connection comprises a first data connection designed to transfer from said ultrasound detector to said combination device said geometry data and a second data connection designed to transfer from said ultrasound detector to said combination device said first image data.

36.   (New) The method of claim 25 wherein said first image data is derived from said ultrasound detector.

37.   (New) The method of claim 25 wherein said second image data is derived from a second detector other than said ultrasound detector.

38.   (New) The method of claim 37 wherein said second detector is not an ultrasound detector.

39. (New) A method of combining first and second image data of an object, comprising:

repeatedly generating first image data of the object using an ultrasound detector;

at least one of storing and receiving second image data of the object;

combining said first image data and said second image data using geometry data;

wherein said geometry data comprise data defining at least one of the following:

a) information concerning at least one spatial dimension of an image unit of the first image data;

b) information concerning an image position of at least a part of an image, which is represented by the first image data, relative to a reference point of the ultrasound detector or relative to a reference point or reference object in the ultrasound image; and

c) information concerning an orientation of the ultrasound image relative to a reference point or a reference object of the ultrasound detector; and

d) information concerning a region or an area, which is actually covered by an ultrasound image that is represented by the first image data.

40. (New) The method of claim 39 wherein said second image data comprises at least one of image data generated by a computer tomography, a magnetic resonance, a positron emission tomography, an X-ray and a three-dimensional ultrasound imaging device.

41. (New) The method of claim 39 wherein the geometry data comprise data defining information concerning a detector position of the ultrasound detector relative to at least one of a position sensor and a signal source, for determining at least one of a location and an orientation of the ultrasound detector.

42. (New) The method of claim 39 wherein the geometry data are at least one of generated by and transferred from a control unit of the ultrasound detector and wherein the control unit is adapted to control an image data generation of the ultrasound detector.

43. (New) The method of claim 39 wherein the combination device continuously

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displays a first image of the object corresponding to the repeatedly generated first image data and continuously displays a second image of the object corresponding to the second image data, wherein the at least one of the orientation and scaling of at least a part of the object is identical in the first and in the second image.

44. (New) The method of claim 39 wherein at least a part of the geometry data is repeatedly transferred to the combination device.

45. (New) The method of claim 39 wherein said geometry data comprise data defining information concerning at least one spatial dimension of an image unit of said first image data.

46. (New) The method of claim 39 wherein said geometry data comprise data defining information concerning at least an image position of at least a part of an image, which is represented by the first image data relative to a reference point of the ultrasound detector or relative to a reference point or reference object in the ultrasound image.

47. (New) The method of claim 39 wherein said geometry data comprise data defining information concerning at least an orientation of the ultrasound image relative to a reference point or a reference object of the ultrasound detector.

48. (New) The method of claim 39 wherein said geometry data comprise data defining information concerning at least a region or an area which is actually covered by an ultrasound image that is represented by said first image data.

49. (New) The method of claim 39 wherein said first image data is derived from said ultrasound detector.

50. (New) The method of claim 39 wherein said second image data is derived from a second detector other than said ultrasound detector.

51.   (New) The method of claim 50 wherein said second detector is not an ultrasound detector.